

Math Medium Term Plan – Year 3



Southridge First
School

Year 3 Math Medium Term Planning Autumn 1

Date	Week	Topic	Math Objectives
		Number and place Value	<p>Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number.</p> <ul style="list-style-type: none"> ➤ Count on and back in 10s from 0 to 1000 ➤ Count on and back in 100s from 0 to 1000 ➤ Count on and back in 50s from 0 to 1000 ➤ Count on and back in 4s from 0 to 1000 ➤ Count on and back in 8s from 0 to 1000 ➤ Find 10 more than a given number between 0 and 1000 ➤ Find 10 less than a given number between 0 and 1000 ➤ Find 100 more than a given number between 0 and 1000 ➤ Find 100 less than a given number between 0 and 1000
		Number and place Value	<p>Read and write numbers to 1,000 in numerals and words</p> <ul style="list-style-type: none"> ➤ Read all numbers from 100 to 1000 in numerals ➤ Write all numbers from 100 to 1000 in numerals ➤ Read all numbers from 100 to 1000 in words ➤ Write all numbers from 100 to 1000 in words
		Measures Perimeter	<p>Measure the perimeter of simple 2D shapes.</p> <ul style="list-style-type: none"> ➤ Know the term 'perimeter' ➤ Know that the perimeter is the distance around the sides of a shape ➤ Understand that the perimeter refers to distance in real life contexts, e.g. football pitch ➤ Measure accurately each side of 2D shapes and add lengths to find the perimeter
		Statistics	<p>Interpret and present data using: bar charts, pictograms, tables</p> <ul style="list-style-type: none"> ➤ Read information set out in a bar chart ➤ Read information set out in a pictogram ➤ Read information set out in a table ➤ Read information from a bar chart that has a scale on the vertical axis ➤ Present information in a table ➤ Present information in a bar chart ➤ Present information in a pictogram ➤ Present information in a bar chart where there is a scale on the vertical axis
		Addition & Subtraction	<p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> - 3-digit number & ones - 3-digit numbers & tens - 3-digit numbers & hundreds <p>Mentally:</p> <ul style="list-style-type: none"> ➤ Subtract any 1-digit number from a greater 1–digit number ➤ Add any 3-digit number to a 1-digit number ➤ Subtract a 1-digit number from a 3-digit number ➤ Add any 3-digit number to a 10s number ➤ Subtract a 10s number from any 3-digit number ➤ Add any 3-digit number to any 100s number. ➤ Subtract any 100s number from a 3-digit number

		Addition and Subtraction	<p>Add and subtract numbers with up to 3 digits, using informal/formal written methods of addition and subtraction.</p> <ul style="list-style-type: none">➤ Add two 2-digit numbers using partitioning (and columnar addition without exchanging)➤ Subtract a 2-digit number from a 2-digit number without exchanging.➤ Add two 3-digit numbers using partitioning (and columnar addition without exchanging.)➤ Subtract a 2 or 3-digit number from a 3-digit number without exchanging.➤ Add two 2-digit numbers where the units make more than 10➤ Add two 3-digit numbers where the units and/or tens make more than 10➤ Subtract a 2-digit number from a 2-digit number where exchanging is required➤ Subtract a 2-digit number from a 3-digit number where exchanging is required
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Year 3 Math Medium Term Planning Autumn 2

Date	Week	Topic	Math Objectives
		Multiplication and Division	<p>Recall and use the multiplication and division facts for the 3, 4 and 8 tables.</p> <ul style="list-style-type: none"> ➤ Count in 3s; forward and backwards. ➤ Recite the x3 table up to x12, without error. ➤ Answer any calculation involving x3, out of order. ➤ Know that 2×3 is the same as 3×2 etc... ➤ Answer any calculation involving $\div 3$, out of order. ➤ Count in 4s; forward and backwards. ➤ Recite the x4 table up to x12, without error. ➤ Answer any calculation involving x4, out of order. ➤ Know that 3×4 is the same as 4×3 etc... ➤ Answer any calculation involving $\div 4$, out of order. ➤ Count in 8s; forward and backwards. ➤ Recite the x8 table up to x12, without error. ➤ Answer any calculation involving x8, out of order. ➤ Know that 4×8 is the same as 8×4 etc... ➤ Answer any calculation involving $\div 8$, out of order.
		Multiplication and Division	<p>Write and calculate mathematical statements for multiplication using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to informal/formal written methods.</p> <ul style="list-style-type: none"> ➤ Multiply a multiple of ten by a single digit mentally, using 2, 3, 4, 5, 8 and 10x. ➤ Multiply a 2-digit number by a single digit using 2, 3, 4, 5, 8 and 10x.
		Multiplication and Division	<p>Write and calculate mathematical statements for division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to informal/formal written methods.</p> <ul style="list-style-type: none"> ➤ Divide 2, 3, 4, 5, 8 into any multiple of ten with no remainder. ➤ Divide 2, 3, 4, 5, 8 into any 2-digit number with no remainder.
		Measures Time	<p>Estimate and read time with increasing accuracy to the nearest minute; Tell and write the time from an analogue clock, including using Roman numerals from I to XII</p> <ul style="list-style-type: none"> ➤ Read the time to one minute intervals. ➤ Estimate the time to the nearest five minute interval, e.g. it is nearly ten past four. ➤ Recognise the Roman numerals from I to XII. ➤ Place I – XII on a clock face in correct place ➤ Read time on clock with Roman numerals ➤ Show equivalent time from Roman numeral clock face on regular analogue face and vice versa
		Geometry 3D shape	<p>Make 3D shapes using modelling materials; recognise 3D shapes in different orientations; & describe them</p> <ul style="list-style-type: none"> ➤ Make 3D shapes from a range of materials (including modelling materials and construction) ➤ Accurately describe the properties of 3D shapes
		Consolidate and Assess	<p>Start this week by revising the learning covered in the Autumn term so as to ensure pupils are fluent and secure with their basic skills. Refocus mental starters as needed.</p>

Year 3 Math Medium Term Planning Spring 1

Date	Week	Topic	Math Objectives
		Number and place Value	<p>Compare and order numbers up to 1000 Recognise the place value of each digit in a 3 digit number</p> <ul style="list-style-type: none"> ➤ Know which number in a set of 3 digit numbers is the greatest ➤ Know which number in a set of 3 digit numbers is the smallest ➤ Order a set of 3 digit numbers from smallest to largest ➤ Order a set of 3 digit numbers from largest to smallest ➤ Identify the hundreds, tens and ones in any 3 digit number ➤ Partition a 3 digit number identifying the value of each digit
		Multiplication and Division	<p>Consolidate: Write and calculate mathematical statements for multiplication and division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.</p> <ul style="list-style-type: none"> ➤ Multiply a multiple of ten by a single digit mentally, using 2, 3, 4, 5, 8 and 10x. ➤ Multiply a 2-digit number by a single digit using 2, 3, 4, 5, 8 and 10x. ➤ Divide 2, 3, 4, 5, 8 into any multiple of ten with no remainder. ➤ Divide 2, 3, 4, 5, 8 into any 2-digit number with no remainder.
		Multiplication and Division	<p>Write and calculate mathematical statements for multiplication and division using known multiplication tables, including use of money and length</p> <ul style="list-style-type: none"> ➤ Multiply monetary values (£ only) by a single digit mentally, using 2, 3, 4, 5, 8 and 10x. ➤ Multiply monetary values (£ and p only) by a single digit mentally, using 2, 3, 4, 5, 8 and 10x. ➤ Divide 2, 3, 4, 5, 8 into any monetary value (£ only) with no remainder. ➤ Divide 2, 3, 4, 5, 8 into any monetary value (£ and p only) with no remainder.
		Fractions	<p>Recognise and show, using diagrams, equivalent fractions with small denominators. Recognise, find and write fractions of a discrete set of objects: unit fractions & non-unit fractions with small denominators.</p> <ul style="list-style-type: none"> ➤ Know that $\frac{1}{2}$ is the same as $\frac{2}{4}$ ➤ Be able to show $\frac{1}{3}$ and $\frac{2}{6}$ of a square ➤ Know what fractional values are, e.g. $\frac{1}{4}$ is one part of four, etc. ➤ Know what a unit fraction is ➤ Know what a non-unit fraction is ➤ Use fractions to solve problems ➤ Use a fraction wall diagram to solve problems

		Fractions and Division	<p>Compare and order unit fractions, and fractions with the same denominators.</p> <ul style="list-style-type: none"> ➤ Order fractions with the same denominator. ➤ Order any unit fractions.
		Measures; Length, mass, volume	<p>Measure, compare, add & subtract: lengths (m/cm/mm) mass (kg/g) Volume / capacity (l/ml).</p> <ul style="list-style-type: none"> ➤ Use measuring apparatus to measure length, mass and volume ➤ Measure accurately to nearest mm, cm, m ➤ Measure accurately to nearest g, kg ➤ Measure accurately to nearest ml, l ➤ Know and use equivalence, e.g. 10mm = 1cm; 50cm = $\frac{1}{2}$m; 100cm = 1m ➤ Know and use equivalence, e.g. 1000g = 1kg; 500g = $\frac{1}{2}$kg ➤ Know and use equivalence, e.g. 1000ml = 1l; 500ml = $\frac{1}{2}$l

Year 3 Math Medium Term Planning Spring 2

Date	Week	Topic	Math Objectives
		Geometry 2D and 3D shapes	Draw 2D shapes <ul style="list-style-type: none"> ➤ Accurately draw 2D shapes and name them, e.g. squares, rectangles and triangles.
		Addition and subtraction	Estimate the answer to a calculation and use the inverse operations to check answers. <ul style="list-style-type: none"> ➤ Use estimation to check the reasonableness of an answer, e.g. Why can't $65+32 = 89$? ➤ Use inverse operations involving + and – to check answers.
		Fractions	Add and subtract fractions with the same denominator within one whole. <ul style="list-style-type: none"> ➤ Add two fractions with the same denominator that add up to no more than one whole. ➤ Subtract one fraction from another with the same denominator (below one whole).
		Geometry Angles	Recognise angles are a property of shape or a description of a turn. Identify right angles; recognise that two right angles make a half-turn, three make three quarters & four a complete turn Identify whether angles are greater than or less than a right angle <ul style="list-style-type: none"> ➤ Know that the space between two lines joined at a point is known as an angle and can be measured in degree ➤ Know that the measurement in degrees is greater when the space is wider ➤ Understand that angle can be used to describe a turn ➤ Be able to identify right angles in the environment ➤ Know a right angle as having 90° and use the degrees symbol ➤ Know that two right angles effectively make a straight line and is equivalent to 180° ➤ Know that two right angles make a half turn ➤ Know that three right angles make a three-quarter turn ➤ Know that four right angles make a complete turn ➤ Identify angles smaller than a right angle ➤ Identify angles larger than a right angle
		Measures Time	12-hour & 24-hour clocks Record and compare time in terms of seconds, minutes, hours. Use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight. <ul style="list-style-type: none"> ➤ Read 24 hour clock and show time on analogue clock face, e.g. 18:30 is half past 6 in the evening. ➤ Be able to tell whether a time is am or pm on a 24 hour clock ➤ Know that 60 seconds is one minute. ➤ Know that 60 minutes is one hour. ➤ Show understanding of equivalence, e.g. 90 secs = 1 minute and a half; 75 minutes = 1 hour and a quarter. ➤ Order amounts of time using different units of measurement, e.g. 90 secs; 2 minutes; 120 minutes; 1.5 hours etc. ➤ Know that am represents time from midnight to noon. ➤ Know that pm represents time from noon to midnight.
		Consolidate and Assess	Start this week by revising the learning covered in the Autumn and Spring terms so as to ensure pupils are fluent and secure with their basic skills.

Year 3 Math Medium Term Planning Summer 1

Date	Week	Topic	Math Objectives
		Multiplication and Division	<p>Additional practise for formal methods of multiplication and division, including a high focus on reasoning</p> <ul style="list-style-type: none"> ➤ Multiply a multiple of ten by a single digit mentally, using 2, 3, 4, 5, 8 and 10x; Setting everything out in formal method ➤ Multiply a 2-digit number by a single digit using 2, 3, 4, 5, 8 and 10x, setting everything out using a formal method ➤ Divide 2, 3, 4, 5, 8 into any multiple of ten with no remainder, setting everything out using a formal method ➤ Divide 2, 3, 4, 5, 8 into any 2-digit number with no remainder, setting everything out using a formal method
		Addition and Subtraction - decimals	<p>Count up and down in tenths; recognise that tenths arise from dividing an object into ten equal parts and in dividing numbers or quantities by 10.</p> <ul style="list-style-type: none"> ➤ Count up in tenths starting at zero ➤ Count back in tenths to zero ➤ Count up in tenths starting at any 'tenth number' ➤ Count back in tenths starting at any 'tenth number' ➤ Know that tenths arise from dividing an object, quantity or number into 10 equal parts ➤ Place fractions (tenths) in order – ascending and descending.
		Addition and subtraction - measures	<p>Add and subtract measures (length, weight and volume) with up to 3 digits, using formal written methods of columnar addition and subtraction.</p> <ul style="list-style-type: none"> ➤ Add two 2-digit numbers using columnar addition without exchanging. ➤ Subtract a 2-digit number from a 2-digit number without exchanging. ➤ Add two 3-digit numbers using columnar addition without exchanging. ➤ Subtract a 2 or 3-digit number from a 3-digit number without exchanging. ➤ Add two 2-digit numbers where the units make more than 10 ➤ Add two 3-digit numbers where the units and/or tens make more than 10 ➤ Subtract a 2-digit number from a 2-digit number where exchanging is required ➤ Subtract a 2-digit number from a 3-digit number where exchanging is required
		Multiplication and Division - measures	<p>Write and calculate measures for multiplication and division using known multiplication tables, including 2-digit x 1-digit, using mental and progressing to formal written methods.</p> <ul style="list-style-type: none"> ➤ Multiply a measure with a multiple of ten by a single digit mentally, using 2, 3, 4, 5, 8 and 10x. ➤ Multiply a measure with a 2-digit number by a single digit using 2, 3, 4, 5, 8 and 10x. ➤ Divide 2, 3, 4, 5, 8 into any measure of ten with no remainder. ➤ Divide 2, 3, 4, 5, 8 into any measure with 2-digit number with no remainder.

		Measures - Time	<p>Know the numbers of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events, for example to calculate time taken by particular events or tasks.</p> <ul style="list-style-type: none"> ➤ Know 60 minutes = 1 hour ➤ Know 60 seconds = 1 minute ➤ Know the number of days per month varies from 28-31 ➤ State how many days in each month ➤ Know the number of days in a year varies between 365 and 366 ➤ Know that there are 366 days in a leap year ➤ Find the time difference between two events by counting on
		Geometry properties	<p>Identify horizontal and vertical lines and pairs of perpendicular & parallel lines.</p> <ul style="list-style-type: none"> ➤ Know and be able to accurately use: horizontal and vertical ➤ Recognise horizontal and vertical in everyday situations ➤ Know the relationship between horizontal and vertical ➤ Know and be able to accurately use: parallel and perpendicular ➤ Accurately draw a line that is parallel or perpendicular to a given line

Year 3 Math Medium Term Planning Summer 2

Date	Week	Topic	Math Objectives
		Place Value	<p>Revise all Year 3 activities associated with place value, including additional reasoning activities.</p> <ul style="list-style-type: none"> ➤ Focus specifically on: ➤ Knowing which number in a set of 3 digit numbers is the greatest ➤ Knowing which number in a set of 3 digit numbers is the smallest ➤ Ordering a set of 3 digit numbers from smallest to largest ➤ Ordering a set of 3 digit numbers from largest to smallest ➤ Identifying the hundreds, tens and ones in any 3 digit number ➤ Partitioning a 3 digit number identifying the value of each digit
		Addition and subtraction problems	<p>Solve word problems including missing number problems, number facts, place value and more complex addition and subtraction.</p> <ul style="list-style-type: none"> ➤ Solve missing number problems ➤ Solve word problems involving place value ➤ Solve problems with addition to 1000 ➤ Solve problems with subtraction to 1000
		Fractions	<p>Revise all Year 3 activities associated with fractions and decimals.</p> <ul style="list-style-type: none"> ➤ Focus specifically on: ➤ Adding two fractions with the same denominator that add up to no more than one whole. ➤ Subtracting one fraction from another with the same denominator (below one whole). ➤ Counting up in tenths starting at zero ➤ Counting back in tenths to zero ➤ Counting up in tenths starting at any 'tenth number' ➤ Counting back in tenths starting at any 'tenth number' ➤ Knowing that tenths arise from dividing an object, quantity or number into 10 equal parts ➤ Placing fractions (tenths) in order – ascending and descending.
		Measures Money	<p>Consolidate: Adding and subtracting amounts of money to give change, using both £ and p in practical contexts.</p> <ul style="list-style-type: none"> ➤ Add any two amounts of money using notes and coins ➤ Sort out an amount of money by organising it into sets of the same coins and then making up sets of pounds ➤ Give change from £5 ➤ Give change from £10
		Statistics	<p>Solve 1-step and 2-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts pictograms and other graphs</p> <ul style="list-style-type: none"> ➤ Solve problems using pictograms ➤ Solve problems using bar charts ➤ Solve problems using graphs ➤ Solve 1-step problems using pictograms, scaled bar charts and other graphs ➤ Solve 2-step problems using pictograms, scaled bar charts and other graphs ➤ Solve problems which ask, 'How many more...?' ➤ Solve problems which ask, 'How many fewer...?'
		Consolidate and Assess	<p>Start this week by revising the learning covered in the Autumn and Spring terms so as to ensure pupils are fluent and secure with their basic skills and ready to begin Year 4. Consolidate any learning from summer term. Refocus mental starters as needed.</p>

